



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
 United States Patent and Trademark Office  
 Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
 Washington, D.C. 20581  
 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/224,214	12/30/1998	JOHN H. HIETT	A62-25262-US	3982

128 7590 02/13/2002

HONEYWELL INTERNATIONAL INC.  
 101 COLUMBIA ROAD  
 P O BOX 2245  
 MORRISTOWN, NJ 07962-2245

EXAMINER

PHAM, BRENDA H

ART UNIT

PAPER NUMBER

2664

DATE MAILED: 02/13/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

SM

**Office Action Summary**Application No.  
09/224,214

Applicant(s)

HIETT

Examiner

Brenda Pham

Art Unit

2664

- The MAILING DATE of this communication appears on the cover sheet with the correspondence address -

**Period for Reply**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE THREE MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**1) ☒ Responsive to communication(s) filed on Dec 30, 19982a) ☐ This action is FINAL.2b) ☒ This action is non-final.3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.**Disposition of Claims**4) ☒ Claim(s) 1-12 is/are pending in the application.

4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.6) ☒ Claim(s) 1-12 is/are rejected.7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.**Application Papers**9) ☐ The specification is objected to by the Examiner.10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.12) ☐ The oath or declaration is objected to by the Examiner.**Priority under 35 U.S.C. § 119**13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).a) ☐ All b) ☐ Some\* c) ☐ None of:1. ☐ Certified copies of the priority documents have been received.2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).**Attachment(s)**15) ☒ Notice of References Cited (PTO-892)18) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_16) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)19) ☐ Notice of Informal Patent Application (PTO-152)17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 4, 5, 620) ☐ Other:

Application/Control Number: 09/224,214

Page 2

Art Unit: 2664

**DETAILED ACTION**

1. Claims 1-12 have been examined.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-12 are rejected under 35 USC 102(b) as being anticipated by **Leuca et al** (US 6,201,797 B1), hereinafter referred to as **Leuca**.

-Regarding claims 1-3 and 7, **Leuca** discloses a data communications system and associated method for providing and controlling data communications from a direct broadcast system to a passenger carrier, said method comprising the steps of (referring to figure 2): transmitting data information requests from an information request system (inherently included in 40) to a ground station (27); transmitting the data information requests from said ground station (27) to said direct broadcast system (29) through a network system (2); accessing data information corresponding to the data information request from said direct broadcast system, ("The desired website responds to the data request by sending the data requested to an access management server 33 that is connected to a DBS system 29. The requested data is transmitted from a ground station 92a to DBS satellite 29b, then to aircraft 40. The laptop computer receives the requested data from DBS interface circuit 20, router 15 and internal data pipe 13.", col. 5,

Application/Control Number: 09/224,214

Page 3

Art Unit: 2664

lines 40-47); transmitting the data information from said direct broadcast system (29a) to a direct broadcast satellite (29b); and broadcasting the data information from said direct broadcast satellite to a receiver provided onboard said passenger carrier.

-Regarding claims 4, 8, 10 and 11, **Leuca** teaches a data communications system and method for a passenger carrier, said system comprising (referring to figure 1): a transmission unit located on board said passenger carrier and operatively connected to a user interface (see figure 1); a ground station (22, 24a) for receiving information request signals from said transmission unit (12); a direct broadcast system (29) for providing data information; a ground network (2) for linking said ground station and said direct broadcast system to facilitate communications; a direct broadcast satellite (24 and 29), said direct broadcast satellite adapted to interface and communicate with said direct broadcast system; and a receiver (inherently included in 12) located onboard said passenger carrier and adapted to receive data signals broadcast from said direct broadcast satellite, said receiver being operatively connected to said user interface (inherently included in 11a) to facilitate the transmission of said data information from said direct broadcast system to passengers (11a-11f).

-Regarding claim 6, **Leuca** further teaches wherein said information request system comprises a wireless LAN unit (12,13) and said first communication medium further comprises: a LAN ground station (22) is adapted to transmit data information requests from said wireless LAN (12, 13) to said network system (2), and said network system is adapted to transfer information requests signals to said data source (particular website on Internet 2).

Application/Control Number: 09/224,214

Page 4

Art Unit: 2664

-Regarding claims 5 and 12, although Leuca does not specifically teach wherein said information request system further comprises a radio frequency unit, a radio frequency unit is inherently included in (item 40 of figure 2). As well understood by those skilled in the art that a radio frequency unit coupled to the antenna is inherently included in Leuca for converting the output of the modulator to a transmission frequency wave and for amplifying the converted wave to a required level.

**Conclusion**

4. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

or faxed to:

(703) 872-9314, (for informal or draft communications, please label  
"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,  
Arlington, VA., Sixth Floor (Receptionist)

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brenda Pham whose telephone number is (703) 308-0148. The examiner can normally be reached on Monday-Friday from 9:00 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin, can be reached on (703) 305-4366.

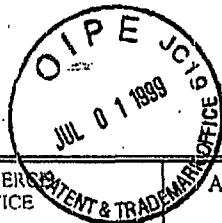
Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Brenda Pham  
February 6, 2002

  
WELLINGTON CHIN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2020

FORM PTO-892		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		SERIAL NO. 09/224,214	GROUP ART UNIT 2664	ATTACHMENT TO PAPER NO.	1
NOTICE OF REFERENCES CITED				APPLICANT(S) HIETT			
U.S. PATENT DOCUMENTS							
*		DOCUMENT NO.	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	A	6,201,797	3/2001	Leuca	370	316	
	B						
	C						
	D						
	E						
	F						
	G						
	H						
	I						
	J						
	K						
FOREIGN PATENT DOCUMENTS							
*		DOCUMENT NO.	DATE	COUNTRY	NAME	CLASS	SUB-CLASS
	L						
	M						
	N						
	O						
	P						
	Q						
OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)							
	R						
	S						
	T						
	U						
EXAMINER Brenda Pham		DATE January 31, 2002		Form 892ccs2106b			
* A copy of this reference is not being furnished with this office action. (See Manual of Patent Examining Procedure, section 707.05(a).)							





RECEIVED

JUL 13 1999

Form PTO-1449 U.S. DEPARTMENT OF COMMERCE (REV. 8-83) PATENT AND TRADEMARK OFFICE				ATTY. DOCKET NO. 46180.7800		SERIAL NO. G010722700	
INFORMATION DISCLOSURE CITATION  (Use several sheets if necessary)				APPLICANTS John H. Hiatt			
				FILING DATE December 20, 1998		GROUP ART UNIT NYA 3664	
U. S. PATENT DOCUMENTS							
EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE IF APPROPRIATE
BP	A	5,717,878	2/10/98	Sannino			
FOREIGN PATENT DOCUMENTS							
	REF	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION YES NO
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)							
BP	B	ARINC741, Part 4, Aviation Satellite Communication System: Specification and Description Language, May 15, 1992, AEEC					
BP	C	Satellite Communication Systems for Multimedia Services, Araki et al, IEEE, 1993, pp. 690-695					
BP	D	ARINC741, Part 3, Aviation Satellite Communication System: Specification and Description Language, January 15, 1994, AEEC					
BP	E	ARINC622-2, ATS Data Link Applications Over ACARS Air-Ground Network, December 20, 1994, AEEC					
BP	F	ARINC741, Part 1, Aviation Satellite Communication System: Aircraft Installation Provisions, December 30, 1994, AEEC					
BP	G	ARINC746, Cabin Communications Systems, April 1, 1996, AEEC					
BP	H	ARINC741, Part 2, Aviation Satellite Communication System: System Design and Equipment Functional Description, November 15, 1996, AEEC					
BP	I	ARINC758, Communications Management Unit, April 30, 1997, AEEC					
BP	J	Inmarsat aeronautical services, November 1998, Inmarsat					
BP	K	http://www.direcpc.com/about/a36f.html, About DirecPC, November 30, 1998					
EXAMINER Brenda H. Pham				DATE CONSIDERED 1/31/02			
*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; draw line-through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.							

46180.7800/647436







FORM PTO 948 (REV. 11-97)

U.S. DEPARTMENT OF COMMERCE-Patent and Trademark Office

Application No. 224 214

### NOTICE OF DRAFTPERSON'S PATENT DRAWING REVIEW

The drawing filed (insert date) 12/30/98 are:A. ✓ not objected to by the Draftperson under 37 CFR 1.84 or 1.152.B. ✓ objected to by the Draftperson under 37 CFR 1.84 or 1.152 as indicated below. The Examiner will require submission of new, corrected drawings where necessary. Corrected drawings must be submitted according to the instructions on the back of this notice.**1. DRAWINGS. 37 CFR 1.84(a):** Acceptable categories of drawings:  
Black ink. Color.       Color drawing are not acceptable until petition is granted.Fig.(s)              Pencil and non black ink is not permitted. Fig(s)       **2. PHOTOGRAPHS. 37 CFR 1.84(b)**       Photographs are not acceptable until petition is granted,       3 full-tone sets are required. Fig(s)              Photographs not properly mounted (must be on Bristol board or photographic double-weight paper). Fig(s)              Poor quality (half-tone). Fig(s)       **3. TYPE OF PAPER. 37 CFR 1.84(e)**       Paper not flexible, strong, white and durable.Fig.(s)              Erasures, alterations, overwritings, interlineations, folds, copy machine marks not acceptable. (too thin)       Mylar, vellum paper is not acceptable (too thin).Fig(s)       **4. SIZE OF PAPER. 37 CFR 1.84(f):** Acceptable sizes:       21.0 cm by 29.7 cm (DIN size A4)       21.6 cm by 27.9 cm (8 1/2 x 11 inches)       All drawings sheets not the same size.Sheet(s)       **5. MARGINS. 37 CFR 1.84(g):** Acceptable margins:

Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm

SIZE: A4 Size

Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm

SIZE: 8 1/2 x 11

       Margins not acceptable. Fig(s)              Top (T)        Left (L)       Right (R)        Bottom (B)**6. VIEWS. 37 CFR 1.84(h)**

REMANDER: Specification may require revision to correspond to drawing changes.

       Views connected by projection lines or lead lines.Fig.(s)       

Partial views. 37 CFR 1.84(h)(2)

       Brackets needed to show figure as one entity.Fig.(s)              Views not labeled separately or properly.Fig.(s)              Enlarged view not labeled separately or properly.Fig.(s)       **7. SECTIONAL VIEWS. 37 CFR 1.84(h)(3)**       Hatching not indicated for sectional portions of an object.Fig.(s)              Sectional designation should be noted with Arabic orRoman numbers. Fig.(s)       **8. ARRANGEMENT OF VIEWS. 37 CFR 1.84(i)**       Words do not appear on a horizontal, left-to-right fashion when page is either upright or turned, so that the top becomes the right side, except for graphs. Fig.(s)              Views not on the same plane on drawing sheet. Fig.(s)       **9. SCALE. 37 CFR 1.84(k)**       Scale not large enough to show mechanism without crowding when drawing is reduced in size to two-thirds in reproduction.Fig.(s)       **10. CHARACTER OF LINES, NUMBERS, & LETTERS. 37 CFR 1.84(l)**       Lines, numbers & letters not uniformly thick and well defined, clean, durable and black (poor line quality).Fig.(s)       **11. SHADING. 37 CFR 1.84(m)**       Solid black areas pale. Fig.(s)              Solid black shading not permitted. Fig.(s)              Shade lines, pale, rough and blurred. Fig.(s)       **12. NUMBERS, LETTERS, & REFERENCE CHARACTERS. 37 CFR 1.84(p)**       Numbers and reference characters not plain and legible.Fig.(s)              Figure legends are poor. Fig.(s)              Numbers and reference characters not oriented in the same direction as the view. 37 CFR 1.84(p)(3) Fig.(s)              English alphabet not used. 37 CFR 1.84(p)(3) Fig.(s)              Numbers, letters and reference characters must be at least .32 cm (1/8 inch) in height. 37 CFR 1.84(p)(3) Fig.(s)       **13. LEAD LINES. 37 CFR 1.84(q)**       Lead lines cross each other. Fig.(s)              Lead lines missing. Fig.(s)       **14. NUMBERING OF SHEETS OF DRAWINGS. 37 CFR 1.84(t)**       Sheets not numbered consecutively, and in Arabic numerals beginning with number 1. Fig.(s)       **15. NUMBERING OF VIEWS. 37 CFR 1.84(u)**       Views not numbered consecutively, and in Arabic numerals, beginning with number 1. Fig.(s)       **16. CORRECTIONS. 37 CFR 1.84(w)**       Corrections not made from PTO-948 dated       **17. DESIGN DRAWINGS. 37 CFR 1.152**       Surface shading shown not appropriate. Fig.(s)              Solid black shading not used for color contrast.Fig.(s)       

COMMENTS

REVIEWER       DATE 6/14/99TELEPHONE NO. 702 385 0845ATTACHMENT TO PAPER NO.       

PTO COPY



COPY OF PAPERS  
ORIGINALLY FILED

IN THE UNITED STATES PATENT AND  
TRADEMARK OFFICE

PATENT

Applicants: John H. Hiatt

Client Ref.: A62-25262-US

Serial No.: 09/224,214

Docket No.: 46180.7800

Filing Date: December 30, 1998

Group Art: 2664

Title: APPARATUS AND METHOD FOR  
DATA COMMUNICATIONS

Examiner Brenda H. Pham

RESPONSE TO OFFICE ACTION

Assistant Commissioner for Patents  
Washington, D.C. 20231

RECEIVED  
JUN 03 2002  
Technology Center 2600

Dear Sir:

In response to the Office Action dated February 13, 2002, please amend the above  
identified application as follows:

IN THE SPECIFICATION

Please amend the paragraph at page 11, lines 7-21, in the specification as follows:

Information requests are transmitted to the data source 104 by the transmission unit 206  
via first communication medium 208. Moreover, the transmission unit 206 may also be  
configured as a transceiver to receive data signals from data source 104 through transmission  
medium 208 or from various components within transmission medium 208, e.g., an aeronautical  
satellite system 310, a VHF ground station 412, or a ground-based LAN 512. Accordingly,  
transmission unit 206 may be configured to validate the contents of the information requests  
signals sent to the data source 104. In the present embodiment, transmission unit 206 includes

1176861

Appl. No. 09/224,214

multiple transmission mechanisms 810 available for transmitting the request to the data source 104, and a selection system 808 for selecting the appropriate transmission mechanism 810. For example, referring now to Figure 8, the transmission unit 206 suitably comprises a selection system 808 and multiple transmission mechanisms 810, such as a satellite transmitter unit 602, a VHF radio unit 406, wireless LAN unit 506, and/or voice channel unit 812. Similarly, first communication medium 208 also suitably includes multiple media corresponding to the various transmission mechanisms, i.e., satellite, VHF radio, wireless, voice and/or direct cable or laser signals.

IN THE CLAIMS

Please cancel claims 2, 4, 5, 11 and 12 without prejudice or disclaimer. Please amend claims 1, 3, 6, 7, 8, 9 and 10 as follows:

1. (Amended) A data communications system for retrieving data information, said data communications system comprising:

a data source comprising a network system for the storage and delivery of the data information;

an information request system comprising a transmission unit coupled to said data source and adapted to request the data information from said data source wherein said transmission unit comprises a satellite data unit and a radio frequency unit;

a first communication medium configured for transmission of requests for the data information from the information request system to said data source, said first communication medium comprising:

1176861

2

24



Appl. No. 09/224,214

an aeronautical satellite system and a ground station, wherein said aeronautical satellite system is adapted to transmit data information requests from said satellite data unit to said ground station, said ground station being coupled to said network system to facilitate the transferring of said data information requests to said network system; and

a radio ground station adapted to receive information request signals from said radio frequency unit, wherein said radio ground station is adapted to transmit data information requests from said radio frequency unit to said network system;

*Re*  
*could* a second communication medium comprising a direct broadcast satellite adapted to receive data information from said data source and to broadcast said data information to said receiver;

a receiver coupled to said data source by said second communication medium and adapted to receive the data information requested by said information request system from said data source; and

wherein said information request system is configured to select one of said aeronautical satellite system and said radio ground station from said first communication medium for transmission of data information requests.

*A3*  
3. (Amended) A data communications system according to claim 1, wherein said network system comprises a direct broadcasting system.

*A4*  
*Cont.* 6. (Amended) A data communications system according to claim 1, wherein said information request system further comprises a wireless LAN unit and said first communication medium further comprises:

a LAN ground station adapted to receive information request signals from said wireless LAN unit, wherein said LAN ground station is adapted to transmit data information requests

Appl. No. 09/224,214

from said wireless LAN unit to said network system, and said network system is adapted to transfer information requests signals to said data source.

47. (Amended) A method for providing and controlling data communications from a direct broadcast system to a passenger carrier, said method comprising the steps of:

transmitting data information requests from an information request system to a ground station, said transmitting of data information requests provided through one of satellite transmission signals and radio transmission signals by way of selection between one of a satellite data unit and a radio frequency unit;

transmitting the data information requests from said ground station to said direct broadcast system through a network system;

accessing data information corresponding to the data information request from said direct broadcast system;

transmitting the data information from said direct broadcast system to a direct broadcast satellite; and

broadcasting the data information from said direct broadcast satellite to a receiver provided onboard said passenger carrier.

58. (Amended) A method according to claim 47, wherein said step of transmitting data information requests from said information request system to said ground station comprises:

transmitting the data information requests from said satellite data unit to an aeronautical satellite system utilizing said satellite transmission signals; and

transmitting the data information requests from said aeronautical satellite system to said ground station using said satellite transmission signals.

Appl. No. 09/224,214

6. (Amended) A method according to claim 4, wherein said step of transmitting data information requests from said information request system to said ground station comprises:

selecting one of a group of transmission mediums comprising an aeronautical satellite system, a radio frequency system, a wireless LAN system and a voice channel system for transmission of the data information requests.

7. (Amended) A data communications system for a passenger carrier, said system comprising:

a4 cont.  
a transmission unit comprising a satellite data unit and a radio frequency unit, located on board said passenger carrier and operatively connected to a user interface, said transmission unit being configured to select one of said satellite data unit and said radio frequency unit for transmission of the information request signals, said satellite frequency unit configured for providing satellite transmission signals to an aeronautical satellite system, said aeronautical satellite system being adapted to provide the information request signals to said ground station, and said radio frequency unit for providing radio transmission signals to said ground station, wherein said ground station is adapted to receive the radio transmission signals and transmit said signals to said ground network;

a ground station for receiving information request signals from said transmission unit;

a direct broadcast system for providing data information;

a ground network for linking said ground station and said direct broadcast system to facilitate communications;

a direct broadcast satellite, said direct broadcast satellite adapted to interface and communicate with said direct broadcast system; and



Appl. No. 09/224,214

a receiver located onboard said passenger carrier and adapted to receive data signals broadcast from said direct broadcast satellite, said receiver being operatively connected to said user interface to facilitate the transmission of said data information from said direct broadcast system to passengers.

Please add the following new claims:

<sup>8</sup>~~13~~. (New) A data communications system according to claim <sup>7</sup>~~10~~, wherein said transmission unit further comprises a wireless LAN unit, said transmission unit being configured to select one of said satellite data unit, said radio frequency unit and said wireless LAN unit for transmission of the information request signals.

<sup>9</sup>~~14~~. (New) A data communications system according to claim <sup>7</sup>~~10~~, wherein said transmission unit further comprises a high power amplifier, a di-plexor low-noise amplifier, and a phased-array antenna, wherein said amplifiers are configured to facilitate transmission of information request signals from said satellite data unit to said phased-array antenna, and said phased-array antenna being configured to transmit the information request signals to said ground station.

<sup>10</sup>~~15~~. (New) A data communications system for retrieving data information, said data communications system comprising:

a data source comprising a network system for the storage and delivery of the data information;

an information request system comprising a transmission unit coupled to said data source and adapted to request the data information from said data source, wherein said transmission unit comprises a satellite data unit, a radio frequency unit, and a wireless LAN unit;

1176861

6

28

Appl. No. 09/224,214

a first communication medium configured for transmission of requests for the data information from the information request system to said data source, said first communication medium comprising:

an aeronautical satellite system and a ground station, wherein said aeronautical satellite system is adapted to transmit data information requests from said satellite data unit to said ground station, said ground station being coupled to said network system to facilitate the transferring of said data information requests to said network system; and

a radio ground station adapted to receive information request signals from said radio frequency unit, wherein said radio ground station is adapted to transmit data information requests from said radio frequency unit to said network system; and

a LAN ground station adapted to receive information request signals from said wireless LAN unit, wherein said LAN ground station is adapted to transmit data information requests from said wireless LAN unit to said network system, and said

network system is adapted to transfer information requests signals to said data source;

a second communication medium comprising a direct broadcast satellite adapted to receive data information from said data source and to broadcast said data information to said receiver;

a receiver coupled to said data source by said second communication medium and adapted to receive the data information requested by said information request system from said data source; and

wherein said information request system is configured to select one of said aeronautical satellite system, said radio ground station and said LAN ground station from said first communication medium for transmission of data information requests.

1176861

Appl. No. 09/224,214

<sup>11</sup>  
~~16~~. (New) A data communications system according to claim <sup>10</sup>~~18~~, wherein said information request system comprises a selection system configured to select one of said aeronautical satellite system, said radio ground station and said LAN ground station from said communication mediums for transmission of data information requests to said data source.

<sup>12</sup>  
~~17~~. (New) A data communications system according to claim <sup>10</sup>~~15~~, wherein said transmission unit further comprises:

Q5  
DUE  
a high power amplifier;

a di-plexor low-noise amplifier; and

a phased-array antenna, wherein said high power amplifier and said di-plexor low-noise amplifier are configured to facilitate transmission of requests signals from said satellite data unit to said phased-array antenna, and said phased-array antenna being configured to transmit the request signals to said data source through said first communication medium.

Appl. No. 09/224,214

**REMARKS**

In the February 13, 2002, Office Action, the Examiner rejected claims 1-12 pending in the application. This Response cancels claims 2, 4, 5, 11 and 12, without prejudice or disclaimer, amends claims 1, 3, 6-10, and presents new claims 13-17 for consideration. Applicant notes the Draft person's objections to the drawings, and plans to submit corrected, formal drawings upon receipt of a Notice of Allowance. After entry of the foregoing amendments, claims 1, 3, 6-10, and 13-17 (3 independent claims; 12 total claims) remain pending in the application. Reconsideration is respectfully requested.

Claims 1-12 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Leuca et al., U.S. Patent No. 6,201,797, issued March 13, 2001 (hereinafter "Leuca"). In light of the amendments to claim 1, Applicant respectfully traverses this rejection.

Leuca generally discloses a method and a communications system in which a request for data transmitted by an airborne transmitter over a low-bandwidth air-to-ground communication system uplink and received by a ground-based receiver. The requested data is then transmitted over a high-bandwidth communication system downlink, such as a DBS satellite system downlink, preferably using an MPEG-2 compression technique, and received by an airborne receiver located on the same aircraft as the airborne transmitter. The received request for data is transmitted to a data network that contains the requested data, such as the Internet or a private data network, using circuit-switched techniques. According to Leuca, the requested data includes one of video information, audio information and textual information.

In contrast to Leuca, Applicant's amended independent claim 1 recites a data communications system for retrieving data information, said data communications system comprising a data source comprising a network system for the storage and delivery of the data

Appl. No. 09/224,214

information, an information request system comprising a transmission unit coupled to said data source and adapted to request the data information from said data source wherein said transmission unit comprises a satellite data unit and a radio frequency unit, a first communication medium configured for transmission of requests for the data information from the information request system to said data source, said first communication medium comprising an aeronautical satellite system and a ground station, wherein said aeronautical satellite system is adapted to transmit data information requests from said satellite data unit to said ground station, said ground station being coupled to said network system to facilitate the transferring of said data information requests to said network system, and a radio ground station adapted to receive information request signals from said radio frequency unit, wherein said radio ground station is adapted to transmit data information requests from said radio frequency unit to said network system, a second communication medium comprising a direct broadcast satellite adapted to receive data information from said data source and to broadcast said data information to said receiver, a receiver coupled to said data source by said second communication medium and adapted to receive the data information requested by said information request system from said data source, and wherein said information request system is configured to select one of said aeronautical satellite system and said radio ground station from said first communication medium for transmission of data information requests. Support for the amendment to claim 1 can be found in the originally filed claims 2, 4 and 5, and in the originally filed specification. No new matter has been introduced.

Leuca does not disclose, teach or suggest various elements of claim 1. For example, Leuca fails to disclose, teach or suggest a first communication medium having both an aeronautical satellite system and a radio ground station, a second communication medium

Appl. No. 09/224,214

comprising a direct satellite is adapted to receive data information and to broadcast data information to said receiver, or wherein the information request system is configured to select one said aeronautical system and said radio ground station from said first communication medium.

While the Examiner acknowledges that Leuca does not teach an information request system further comprising a radio frequency unit, the Examiner contends that the radio frequency unit is inherently included within the aircraft 40 of Leuca. Applicant's counsel has reviewed Leuca and it is not apparent where any such information request system of Leuca comprises a transmission unit, let alone one comprising a satellite data unit and a radio frequency unit (claim 1), and a LAN unit (claim 6). Applicant respectfully submits that it is improper for the Examiner to contend that particular features are inherent properties within the prior art which are not demonstrated by the prior art, *i.e.*, arguments based on inherent properties cannot stand when there is no supporting teaching in the prior art. In re Spormann, 363 F.2d 444, 150 USPQ449, 452 (CCPA 1966) ("The inherency of an advantage and its obviousness are entirely different questions. That which may inherent is not necessarily known. Obviousness cannot be predicated on what is unknown.")

For the above reasons, Applicant submits that each and every element of independent claim 1 is not disclosed, taught or suggested by Leuca. Accordingly, claim 1 (and claims 3 and 6, each of which variously depend from claim 1) is not anticipated by Leuca, and Applicant respectfully requests the withdrawal of the rejection of claims 1, 3 and 6 under 35 U.S.C. § 102.

Furthermore, the invention of claims 1, 3 and 6 would not have been obvious to one skilled in the art having knowledge of Leuca. The Examiner cannot simply pick and choose among the individual elements of Leuca to recreate the claimed invention, but instead must look



Appl. No. 09/224,214

for some teaching or suggestion in Leuca to support their particular claim combination. Symbol Technologies, Inc. v. Opticon, Inc., 935 F.2d 1569, 1576 19 USPQ2d 1241 (Fed. Cir. 1991) (citing Smithkline Diagnostics, Inc. v. Helena Laboratories Corp., 859 F.2d 878, 887, 8 USPQ2d (BAN 1468, 1475 (Fed. Cir. 1988)).

Applicant's amended independent claim 7 recites a method for providing and controlling data communications from a direct broadcast system to a passenger carrier, said method comprising the steps of transmitting data information requests from an information request system to a ground station, said transmitting of data information requests provided through one of satellite transmission signals and radio transmission signals by way of selection between one of a satellite data unit and a radio frequency unit, transmitting the data information requests from said ground station to said direct broadcast system through a network system, accessing data information corresponding to the data information request from said direct broadcast system, transmitting the data information from said direct broadcast system to a direct broadcast satellite, and broadcasting the data information from said direct broadcast satellite to a receiver provided onboard said passenger carrier. Leuca does not disclose, teach or suggest the transmitting of data information requests provided through one of satellite transmission signals and radio transmission signals by way of selection between one of the satellite data unit and a radio frequency unit.

Applicant submits that each and every element of independent claim 7 is also not disclosed, taught or suggested by Leuca. Accordingly, claim 7 and claims 8 and 9 (each of which variously depend from claim 7) are not anticipated by Leuca, and Applicant respectfully requests the withdrawal of the rejection of claims 7-9 under 35 U.S.C. § 102.



Appl. No. 09/224,214

Claim 9 is also independently patentable over Leuca in that claim 9 further recites the step of selecting one of a group of transmission mediums comprising an aeronautical satellite system, a radio frequency system, a wireless LAN system and a voice channel system for transmission of the data information requests. Each of these elements are simply not disclosed, taught or suggested by Leuca.

Applicant's amended independent claim 10 recites a data communications system for a passenger carrier, said system comprising a transmission unit comprising a satellite data unit and a radio frequency unit, located on board said passenger carrier and operatively connected to a user interface, said transmission unit being configured to select one of said satellite data unit and said radio frequency unit for transmission of the information request signals, said satellite frequency unit configured for providing satellite transmission signals to an aeronautical satellite system, said aeronautical satellite system being adapted to provide the information request signals to said ground station, and said radio frequency unit for providing radio transmission signals to said ground station, wherein said ground station is adapted to receive the radio transmission signals and transmit said signals to said ground network, a ground station for receiving information request signals from said transmission unit, a direct broadcast system for providing data information, a ground network for linking said ground station and said direct broadcast system to facilitate communications, a direct broadcast satellite, said direct broadcast satellite adapted to interface and communicate with said direct broadcast system, and a receiver located onboard said passenger carrier and adapted to receive data signals broadcast from said direct broadcast satellite, said receiver being operatively connected to said user interface to facilitate the transmission of said data information from said direct broadcast system to passengers.

Appl. No. 09/224,214

For reasons similar to those above, Applicant submits that each and every element of independent claim 10 is not disclosed, taught or suggested by Leuca. Accordingly, claim 10 (and claims 13 and 14, each of which variously depend from claim 10) is not anticipated by Leuca, and Applicant respectfully requests the withdrawal of the rejection of claim 10 under 35 U.S.C. § 102.

In addition to the above reasons, claim 14 is not taught or suggested by Leuca for at least one other independent reason. For example, claim 14 further recites that said transmission unit "further comprises a high power amplifier, a di-plexor low-noise amplifier, and a phased-array antenna, wherein said amplifiers are configured to facilitate transmission of information request signals from said satellite data unit to said phased-array antenna, and said phased-array antenna being configured to transmit the information request signals to said ground station." These elements are simply not disclosed, taught or suggested by Leuca. Accordingly, claim 14 is independently allowable under § 102.

Applicant has also added new claims 15-17 which are believed to be allowable for the reasons set forth above with respect to Leuca.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached pages are captioned "**Version with Markings to Show Changes Made.**"

In view of the foregoing, Applicant respectfully submits that all the pending claims fully comply with 35 U.S.C. 112 and are allowable over the prior art of record. Reconsideration of the application and allowance of all pending claims is earnestly solicited. Should the Examiner wish to discuss any of the above in greater detail or deem that further amendments should be made to

Appl. No. 09/224,214

improve the form of the claims, then the Examiner is invited to telephone the undersigned at the Examiner's convenience.

Respectfully submitted,

Dated: 5/13/02

By: R. Lee Fraley  
R. Lee Fraley  
Reg. No. 42,550

**SNELL & WILMER L.L.P.**  
One Arizona Center  
400 East Van Buren  
Phoenix, AZ 85004-2202  
Phone: (602) 382-6250  
Fax: (602) 382-6070

Appl. No. 09/224,214

**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

**IN THE SPECIFICATION:**

Please amend the paragraph at page 11, lines 7-21, in the specification as follows:

Information requests are transmitted to the data source 104 by the transmission unit 206 via first communication medium 208. Moreover, the transmission unit 206 may also be configured as a transceiver to [recieve] receive data signals from data source 104 through transmission medium 208 or from various components within transmission medium 208, e.g., an aeronautical satellite system 310, a VHF ground station 412, or a ground-based LAN 512. Accordingly, transmission unit 206 may be configured to validate the contents of the information requests signals sent to the data source 104. In the present embodiment, transmission unit 206 includes multiple transmission mechanisms 810 available for transmitting the request to the data source 104, and a selection system 808 for selecting the appropriate transmission mechanism 810. For example, referring now to Figure 8, the transmission unit 206 suitably comprises a selection system 808 and multiple transmission mechanisms 810, such as a satellite transmitter unit 602, a VHF radio unit 406, wireless LAN unit 506, and/or voice channel unit 812. Similarly, first communication medium 208 also suitably includes multiple media corresponding to the various transmission mechanisms, i.e., satellite, VHF radio, wireless, voice and/or direct cable or laser signals.

**IN THE CLAIMS:**

1. (Amended) A data communications system for retrieving data information, said data communications system comprising:

Appl. No. 09/224,214

a data source comprising a network system for the storage and delivery of the data information;

an information request system comprising a transmission unit coupled to said data source and adapted to request the data information from said data source wherein said transmission unit comprises a satellite data unit and a radio frequency unit; [and]

a first communication medium configured for transmission of requests for the data information from the information request system to said data source, said first communication medium comprising:

an aeronautical satellite system and a ground station, wherein said aeronautical satellite system is adapted to transmit data information requests from said satellite data unit to said ground station, said ground station being coupled to said network system to facilitate the transferring of said data information requests to said network system; and  
a radio ground station adapted to receive information request signals from said radio frequency unit, wherein said radio ground station is adapted to transmit data information requests from said radio frequency unit to said network system;

a second communication medium comprising a direct broadcast satellite adapted to receive data information from said data source and to broadcast said data information to said receiver;

a receiver coupled to said data source by said second communication medium and adapted to receive the data information requested by said information request system from said data source; and

wherein said information request system is configured to select one of said aeronautical satellite system and said radio ground station from said first communication medium for

Appl. No. 09/224,214

transmission of data information requests.

3. (Amended) A data communications system according to claim [2] 1, wherein said [data source] network system comprises a direct broadcasting system [and said second communication medium comprises a direct broadcast satellite adapted to receive data information from said data source and broadcasting said data information to said receiver].

6. (Amended) A data communications system according to claim [5] 1, wherein said information request system further comprises a wireless LAN unit and said first communication medium further comprises:

a LAN ground station adapted to receive information request signals from said wireless LAN unit, wherein said LAN ground station is adapted to transmit data information requests from said wireless LAN unit to said network system, and said network system is adapted to transfer information requests signals to said data source.

7. (Amended) A method for providing and controlling data communications from a direct broadcast system to a passenger carrier, said method comprising the steps of:

transmitting data information requests from an information request system to a ground station[:]; said transmitting of data information requests provided through one of satellite transmission signals and radio transmission signals by way of selection between one of a satellite data unit and a radio frequency unit;

transmitting the data information requests from said ground station to said direct broadcast system through a network system;

accessing data information corresponding to the data information request from said direct broadcast system;



Appl. No. 09/224,214

transmitting the data information from said direct broadcast system to a direct broadcast satellite; and

broadcasting the data information from said direct broadcast satellite to a receiver provided onboard said passenger carrier.

8. (Amended) A method according to claim 7, wherein said step of transmitting data information requests from said information request system to said ground station comprises:

transmitting the data information requests from [a] said satellite data unit to an aeronautical satellite system utilizing said satellite transmission signals; and

transmitting the data information requests from said aeronautical satellite system to said ground station using said satellite transmission signals.

9. (Amended) A method according to claim 7, wherein said step of transmitting data information requests from said information request system to said ground station comprises:

[transmitting the data information requests from a radio frequency unit to said ground station utilizing radio transmission signals.] selecting one of a group of transmission mediums comprising an aeronautical satellite system, a radio frequency system, a wireless LAN system and a voice channel system for transmission of the data information requests.

10. (Amended) A data communications system for a passenger carrier, said system comprising:

a transmission unit comprising a satellite data unit and a radio frequency unit, located on board said passenger carrier and operatively connected to a user interface, said transmission unit being configured to select one of said satellite data unit and said radio frequency unit for transmission of the information request signals, said satellite frequency unit configured for providing satellite transmission signals to an aeronautical satellite system, said aeronautical



Appl. No. 09/224,214

satellite system being adapted to provide the information request signals to said ground station,  
and said radio frequency unit for providing radio transmission signals to said ground station,  
wherein said ground station is adapted to receive the radio transmission signals and transmit said  
signals to said ground network;

a ground station for receiving information request signals from said transmission unit;

a direct broadcast system for providing data information;

a ground network for linking said ground station and said direct broadcast system to  
facilitate communications;

a direct broadcast satellite, said direct broadcast satellite adapted to interface and  
communicate with said direct broadcast system; and

a receiver located onboard said passenger carrier and adapted to receive data signals  
broadcast from said direct broadcast satellite, said receiver being operatively connected to said  
user interface to facilitate the transmission of said data information from said direct broadcast  
system to passengers.



COPY OF PAPERS  
ORIGINALLY FILED

AD 2664

**CERTIFICATE OF MAILING PURSUANT TO 37 C.F.R. §1.8**

I hereby certify that this correspondence and attached documents in response to an Office Action, pursuant to 37 C.F.R. §1.8, are being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231, on:

Date: May 13, 2002

By [Signature]

PATENT

IN THE UNITED STATES PATENT AND  
TRADEMARK OFFICE

**RECEIVED**

JUN 03 2002

RESPONSE TRANSMITTAL

Technology Center 2600

Applicant(s): John H. Hiatt

Client Ref.: A62-25262-US

Serial No.: 09/224,214

Docket No.: 46180.7800

Filing Date: December 30, 1998

Group Art: 2664

Title: APPARATUS AND METHOD FOR  
DATA COMMUNICATIONS

Examiner: Brenda H. Pham

Assistant Commissioner for Patents  
Washington, D.C. 20231

Dear Sir/Madam:

Attached herewith is a response to an Office Action dated February 13, 2002, in the above-identified application.

**FEE CALCULATION, CLAIMS AS AMENDED:**

	Claims remaining after amendment		Highest number previously paid for		Present Extra		Additional Fee
Total Effective Claims	12	minus	20	=	x	=	
Independent Claims	3	minus	3	=	x	=	
If amendment enters proper multiple dependent claim(s) into this application for first time (per application)						\$260.00 +	N/A
Subtotal:							

1181986

Attorney Docket No. 46180.7800  
Serial No. 09/224,214

Fee Calculation: Request for Extension of Time pursuant to  
37 C.F.R. §1.136(a)

<input type="checkbox"/>	Response filed within first month after due date – add	\$ 110.00
<input type="checkbox"/>	Response filed within second month after due date – add	\$ 390.00
<input type="checkbox"/>	Response filed within third month after due date – add	\$ 890.00
<input type="checkbox"/>	Response filed within fourth month after due date – add	\$1390.00
<input type="checkbox"/>	Response filed within fifth month after due date – add	\$1890.00
	<b>TOTAL:</b>	

If one of the "small entity" boxes above is checked, enter half (½)  
of the second subtotal and subtract.

Information Disclosure Statement Pursuant to 37 C.F.R. §§1.97-1.98

N/A

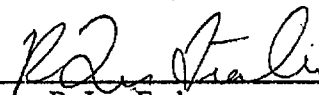
**TOTAL ADDITIONAL FEE ENCLOSED:**

- ☐ Please charge Deposit Account No. 19-2814 in the amount of \$\_\_\_\_\_.  
A duplicate copy of this sheet is attached.
- ☐ Check No. \_\_\_\_\_ in the amount of \$\_\_\_\_\_ is attached.

**This statement does NOT authorize charge of the issue fee.** The Commissioner is hereby authorized to charge any other fee specifically authorized hereafter, or any deficiency in the fee(s) filed, or asserted to be filed, or which should have been filed herewith or concerning any paper filed hereafter, and which may be required under 37 C.F.R. §§1.16-1.18 (deficiency only) now or hereafter relative to this Application and the resulting Official document under 37 C.F.R. §1.20, or credit any overpayment to Account No. 19-2814 for which purpose a duplicate copy of this sheet is attached.

Respectfully submitted,

By

  
R. Lee Fraley  
Reg. No. 42,550

Dated

5/13/02

**SNELL & WILMER, L.L.P.**  
One Arizona Center  
400 East Van Buren  
Phoenix, Arizona 85004-2202  
Phone: (602) 382-6250  
Fax: (602) 382-6070

1181986

2

Attorney Docket No. 46180.7800  
Serial No. 09/224,214

**Notice of Allowability**Application No.  
**09/224,214**Applicant(s)  
**HIETT**Examiner  
**Brenda Pham**Art Unit  
**2664****--The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 5/13/20
2. ☒ The allowed claim(s) is/are 1, 3, 6-10, 13-17, renumbering as 1-12, respectively.
3. ☐ The drawings filed on \_\_\_\_\_ are accepted by the Examiner.
4. ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All    b) ☐ Some\*    c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

5. ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- (a) ☐ The translation of the foreign language provisional application has been received.
6. ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

7. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
8. ☒ CORRECTED DRAWINGS must be submitted.
- (a) ☒ Including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☒ to Paper No. 7
- (b) ☐ Including changes required by the proposed drawing correction filed \_\_\_\_\_, which has been approved by the examiner.
- (c) ☐ Including changes required by the attached Examiner's Amendment/Comment or in the Office action of Paper No. \_\_\_\_\_

Identifying indicia such as the application number (see 37 CFR 1.84(e)) should be written on the drawings in the top margin (not the back) of each sheet. The drawings should be filed as a separate paper with a transmittal letter addressed to the Official Draftsperson.

9. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |   |
|--|---|
| 1 <input type="checkbox"/> Notice of References Cited (PTO-892)  | 2 <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)          |
| 3 <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                    | 4 <input type="checkbox"/> Interview Summary (PTO-413), Paper No. _____             |
| 5 <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449), Paper No(s). _____          | 6 <input type="checkbox"/> Examiner's Amendment/Comment                             |
| 7 <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | 8 <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| 9 <input type="checkbox"/> Other   |   |

Application/Control Number: 09/224,214

Page 2

Art Unit: 2664

#### REASONS FOR ALLOWANCE

1. Claims 1, 3, 6-10 and 13-17 are allowed. Claims 2, 4, 5, 11 and 12 have been canceled.
2. The following is an examiner's statement of reasons for allowance: the prior art made of record does not teach or fairly suggests in combination a data communications system for retrieving data information, said data communications system comprising: a data source comprising a network system for the storage and delivery of the data information; an information request system comprising a transmission unit coupled to said data source and adapted to request the data information from said data source wherein said transmission unit comprises a satellite data unit and a radio frequency unit; a first communication medium configured for transmission of requests for the data information from the information request system to said data source, said first communication medium comprising: an aeronautical satellite system and a ground station, wherein said aeronautical satellite system is adapted to transmit data information requests from said satellite data unit to said ground station, said ground station being coupled to said network system to facilitate the transferring of said data information requests to said network system; and a radio ground station adapted to receive information request signals from said radio frequency unit, wherein said radio ground station is adapted to transmit data information requests from said radio frequency unit to said network system; a second communication medium comprising a direct broadcast satellite adapted to receive data information from said data source and to broadcast said data information to said receiver; a receiver coupled to said data source by said second communication medium and adapted to receive the data information requested by said information request system from said data source; and wherein said information request system is configured

Application/Control Number: 09/224,214

Page 3

Art Unit: 2664

to select one of said aeronautical satellite system and said radio ground station from said first communication medium for transmission of data information requests.

The prior art made of record fails to teach in combination a method for providing and controlling data communications from a direct broadcast system to a passenger carrier, said method comprising the steps of: transmitting data information requests from an information request system to a ground station, said transmitting of data information requests provided through one of satellite transmission signals and radio transmission signals by way of selection between one of a satellite data unit and a radio frequency unit; transmitting the data information requests from said ground station to said direct broadcast system through a network system; accessing data information corresponding to the data information request from said direct broadcast system; transmitting the data information from said direct broadcast system to a direct broadcast satellite; and broadcasting the data information from said direct broadcast satellite to a receiver provided onboard said passenger carrier.

The prior art made of record fails to teach a data communications system for a passenger carrier, said system comprising: a transmission unit comprising a satellite data unit and a radio frequency unit, located on board said passenger carrier and operatively connected to a user interface, said transmission unit being configured to select one of said satellite data unit and said radio frequency unit for transmission of the information request signals, said satellite frequency unit configured for providing satellite transmission signals to an aeronautical satellite system, said aeronautical satellite system being adapted to provide the information request signals to said ground station, and said radio frequency unit for providing radio transmission signals to said



Application/Control Number: 09/224,214

Page 4.

Art Unit: 2664

ground station, and said radio frequency unit for providing radio transmission signals to said ground station, wherein said ground station is adapted to receive the radio transmission signals and transmit said signals to said ground network; a ground station for receiving information request signals from said transmission unit; a direct broadcast system for providing data information; a ground network for linking said ground station and said direct broadcast system to facilitate communications; a direct broadcast satellite, said direct broadcast satellite adapted to interface and communicate with said direct broadcast system; a receiver located onboard said passenger carrier and adapted to receive data signals broadcast from said direct broadcast satellite, said receiver being operatively connected to said user interface to facilitate the transmission of said data information from said direct broadcast system to passengers.

The prior art fails to in combination a data communications system for retrieving data information, said data communications system comprising: a data source comprising a network system for the storage and delivery of the data information; an information request system comprising a transmission unit coupled to said data source and adapted to request the data information from said data source, wherein said transmission unit comprises a satellite data unit, a radio frequency unit, and a wireless LAN unit; a first communication medium configured for transmission of requests for the data information from the information request system to said data source, said first communication medium comprising: an aeronautical satellite system and a ground station, wherein said aeronautical satellite system is adapted to transmit data information requests from said satellite data unit to said ground station, said ground station being coupled to said network system to facilitate the transferring of said data information requests to said network



Application/Control Number: 09/224,214

Page 5

Art Unit: 2664

system; and a radio ground station adapted to receive information request signals from said radio frequency unit, wherein said radio ground station is adapted to transmit data information requests from said radio frequency unit to said network system; and a LAN ground station adapted to receive information request signals from said wireless LAN unit, wherein said LAN ground station is adapted to transmit data information requests from said wireless LAN unit to said network system, and said network system is adapted to transfer information requests signals to said data source; a second communication medium comprising a direct broadcast satellite adapted to receive data information from said data source and to broadcast said data information to said receiver; a receiver coupled to said data source by said second communication medium and adapted to receive the data information requested by said information request system from said data source; and wherein said information request system is configured to select one of said aeronautical satellite system, said radio ground station and said LAN ground station from said first communication medium for transmission of data information request.

3. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on statement of Reasons for Allowance."

Application/Control Number: 09/224,214

Page 6

Art Unit: 2664

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brenda Pham whose telephone number is (703) 308-0148. The examiner can normally be reached on Monday-Friday from 9:00 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin, can be reached on (703) 305-4366.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Brenda Pham  
June 13, 2002



WELLINGTON CHIN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

## NOTICE OF ALLOWANCE AND FEE(S) DUE

12H 7590 06/17/2002  
HONEYWELL INTERNATIONAL INC.  
101 COLUMBIA ROAD  
P O BOX 2245  
MORRISTOWN, NJ 07962-2245

EXAMINER

PHAM, BRENDA H

ART UNIT

CLASS-SUBCLASS

2664

370-316000

DATE MAILED: 06/17/2002

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/224,214	12/30/1998	JOHN H. HIETT	A62-25262-US	3982

TITLE OF INVENTION: APPARATUS AND METHOD FOR DATA COMMUNICATIONS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1280	\$0	\$1280	09/17/2002

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

## HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above. If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is changed, pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above and notify the United States Patent and Trademark Office of the change in status, or

B. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check the box below and enclose the PUBLICATION FEE and 1/2 the ISSUE FEE shown above.

☐ Applicant claims SMALL ENTITY status.  
See 37 CFR 1.27.

II. PART B - FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B - Fee(s) Transmittal should be completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Box ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

Page 1 of 3

PTOL-85 (REV. 04-02) Approved for use through 01/31/2004.

## PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: **Mail** Box ISSUE FEE  
Commissioner for Patents  
Washington, D.C. 20231  
**Fax** (703)746-4000

**INSTRUCTIONS:** This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 4 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEB ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Legibly mark-up with any corrections or use Block 1)

128 7590 06/17/2002

HONEYWELL INTERNATIONAL INC.  
101 COLUMBIA ROAD  
P O BOX 2245  
MORRISTOWN, NJ 07962-2245

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

## Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Box Issue Fee address above, or being facsimile transmitted to the USPTO, on the date indicated below.

(Depositor's name)

(Signature)

(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/224,214	12/30/1998	JOHN H. HIETT	A62-25262-US	3982

TITLE OF INVENTION: APPARATUS AND METHOD FOR DATA COMMUNICATIONS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1280	\$0	\$1280	09/17/2002

EXAMINER	ART UNIT	CLASS-SUBCLASS
PHAM, BRENDA H	2664	370-316000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47) attached. Use of a Customer Number is required.

2. For printing on the patent front page, list (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 \_\_\_\_\_  
2 \_\_\_\_\_  
3 \_\_\_\_\_

## 3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. Inclusion of assignee data is only appropriate when an assignment has been previously submitted to the USPTO or is being submitted under separate cover. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent):

☐ Individual ☐ corporation or other private group entity ☐ government

4a. The following fee(s) are enclosed:

4b. Payment of Fee(s):

☐ Issue Fee

☐ Publication Fee

☐ Advance Order - # of Copies \_\_\_\_\_

☐ A check in the amount of the fee(s) is enclosed.

☐ Payment by credit card. Form PTO-2038 is attached.

☐ The Commissioner is hereby authorized by charge the required fee(s), or credit any overpayment, to Deposit Account Number \_\_\_\_\_ (enclose an extra copy of this form).

Commissioner for Patents is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above.

(Authorized Signature)

(Date)

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, D.C. 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

TRANSMIT THIS FORM WITH FEE(S)

PTOL-85 (REV. 04-02) Approved for use through 01/31/2004. OMB 0651-0033

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
 United States Patent and Trademark Office  
 Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
 Washington, D.C. 20531  
 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/224,214	12/30/1998	JOHN H. HIETT	A62-25262-US	3982
12H	7590	06/17/2002	EXAMINER	
HONEYWELL INTERNATIONAL INC. 101 COLUMBIA ROAD P O BOX 2245 MORRISTOWN, NJ 07962-2245 UNITED STATES			PHAM, BRENDA H	
			ART UNIT	PAPER NUMBER
			2664	

DATE MAILED: 06/17/2002

**Determination of Patent Term Extension under 35 U.S.C. 154 (b)**  
 (application filed after June 7, 1995 but prior to May 29, 2000)

The patent term extension is 0 days. Any patent to issue from the above identified application will include an indication of the 0 day extension on the front page.

If a continued prosecution application (CPA) was filed in the above-identified application, the filing date that determines patent term extension is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) system. (<http://pair.uspto.gov>)



Docket No. A61-25262  
PATENT APPLICATION #10

I certify that on the date specified below this correspondence is being deposited with the United States Postal Service with sufficient postage as first-class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231.

9-12-02  
Date

*C. Langrall*  
Cynthia Langrall

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant:	Hiett	Group Art Unit:	2664
Application No.:	09/224,214	Examiner:	Pham, Brenda H.
Filing Date:	12/30/1998	Docket No.:	A61-25262
For:	APPARATUS AND METHOD FOR DATA COMMUNICATIONS		
Date of Notice of Allowance:	06/17/2002		

Attention: **Official Draftsperson**  
Assistant Commissioner for Patents  
Washington, D.C. 20231

**TRANSMITTAL OF FORMAL DRAWINGS**

Sir:

In response to the requirement for Formal Drawings in the Notice of Allowability mailed 17 June 2002 and within the three-month period set for response, Applicant submits five (5) sheets of Formal Drawings, Figures 1 through 8, for review by the Official Draftsperson for conformance with the Rules.

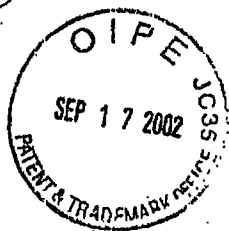
Respectfully submitted,

*Miriam Jackson*

Miriam Jackson  
Registration No.: 33,911  
Telephone No.: 602-436-2909

Honeywell International Inc.  
Law Dept. AB2  
101 Columbia Road  
PO Box 2245  
Morristown, NJ 07962





6477152

1/5

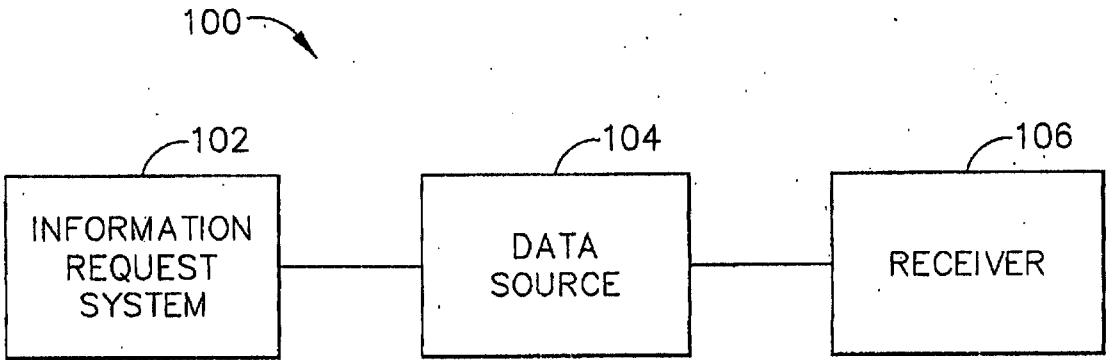


FIG. 1

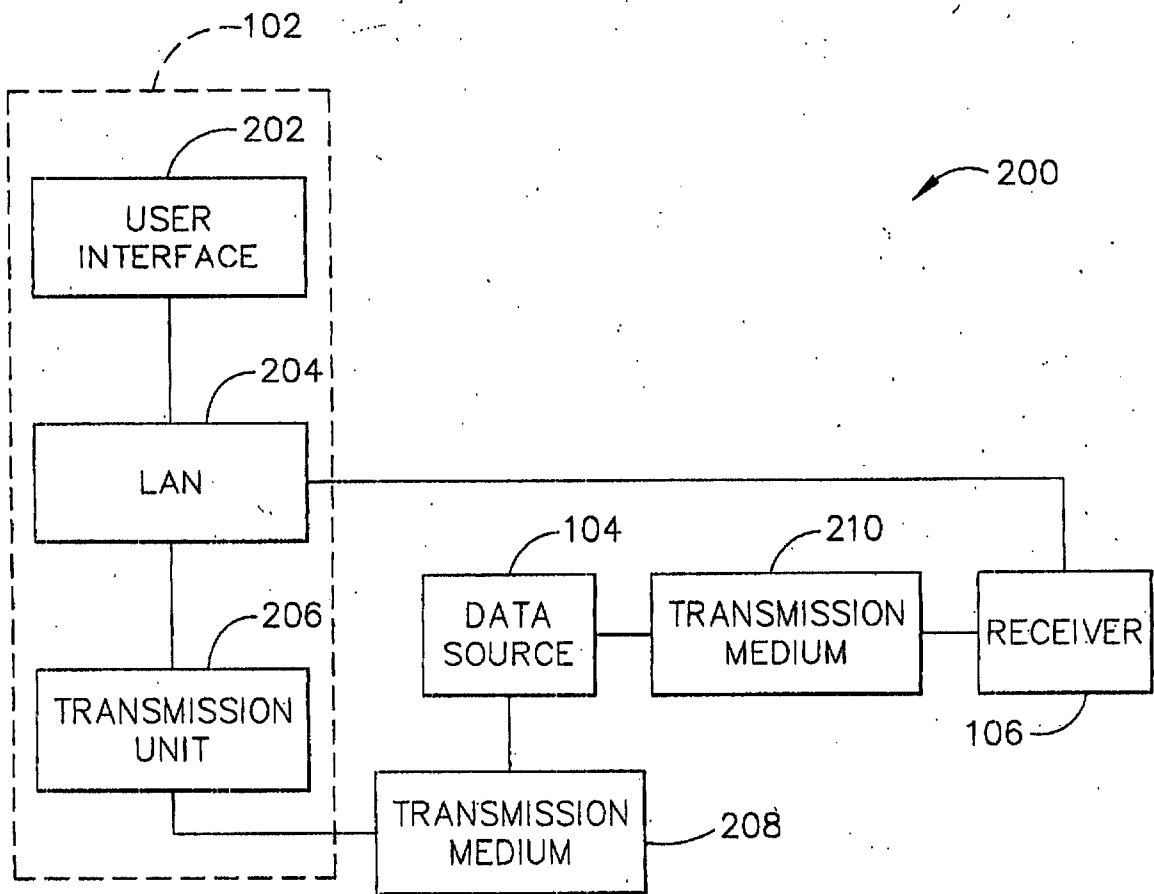


FIG. 2

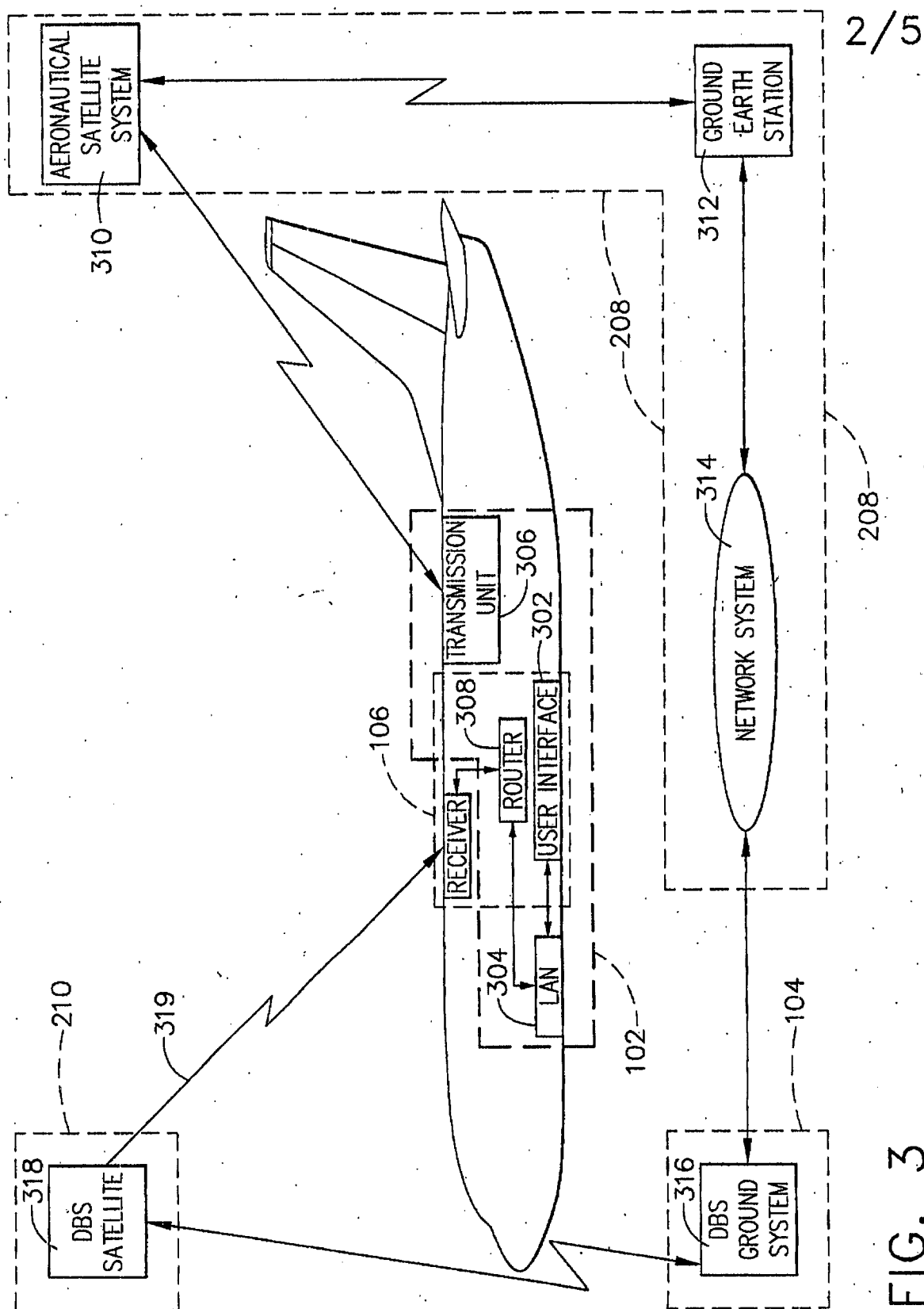


FIG. 3



3/5

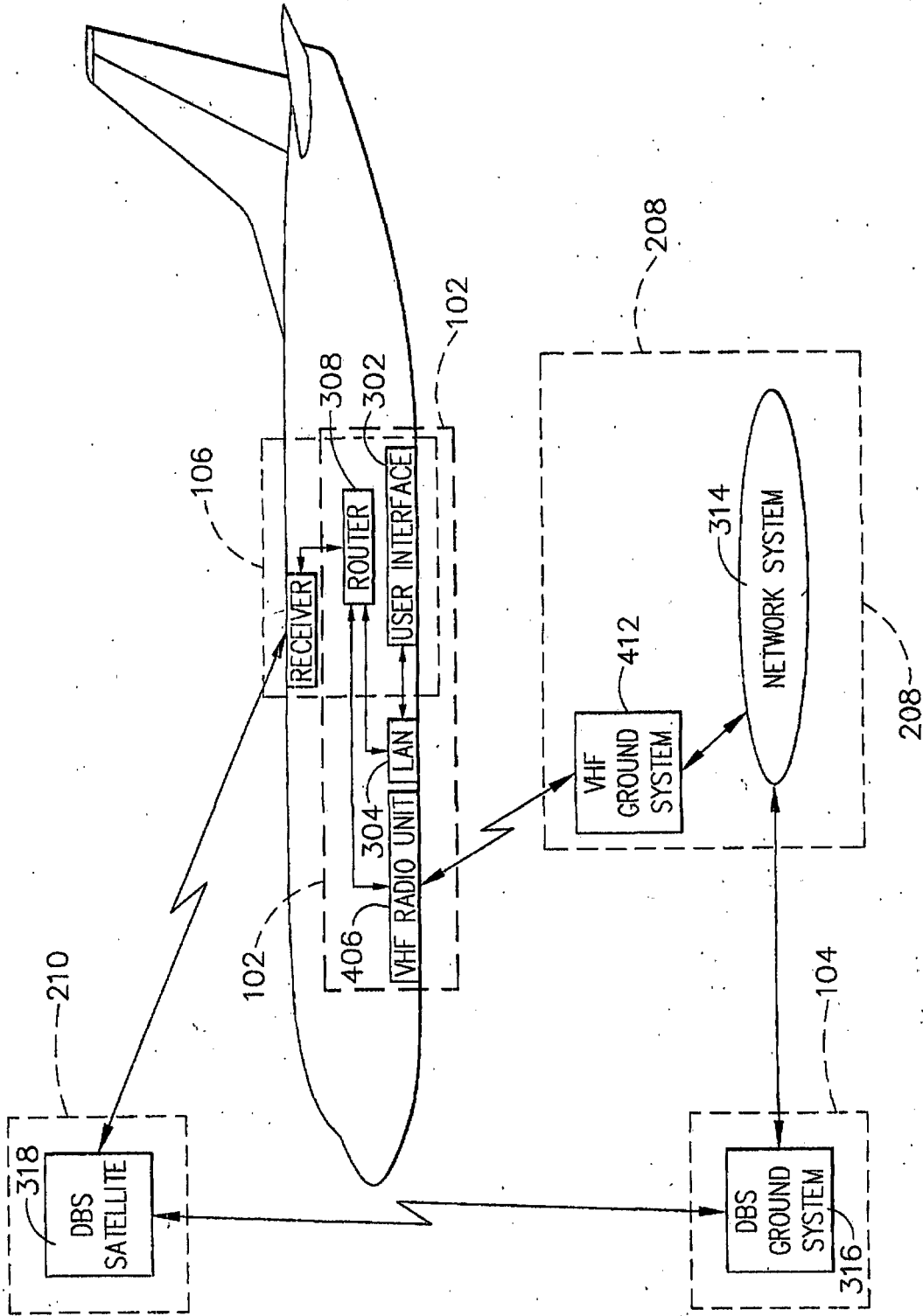


FIG. 4



4/5

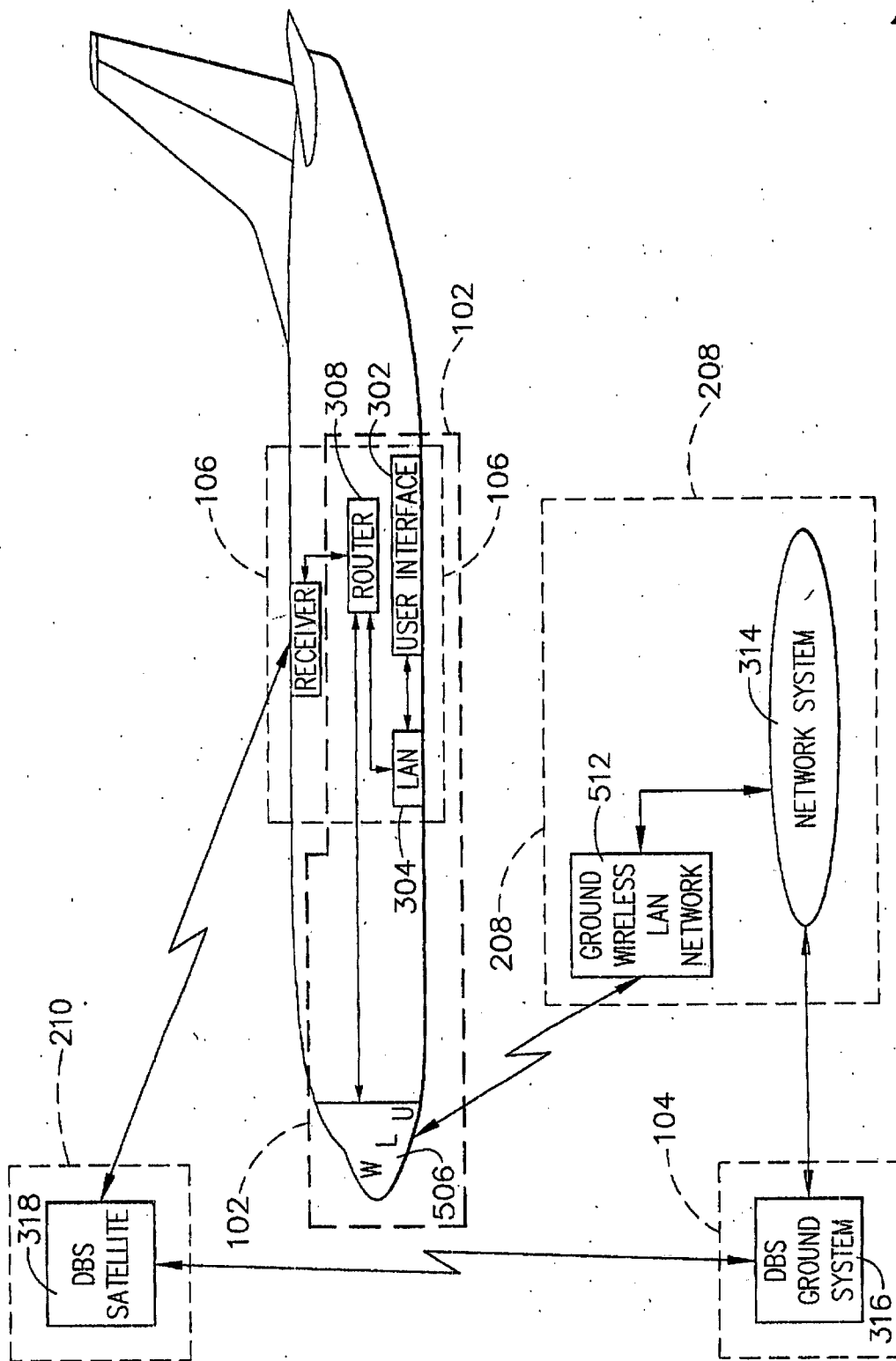


FIG. 5

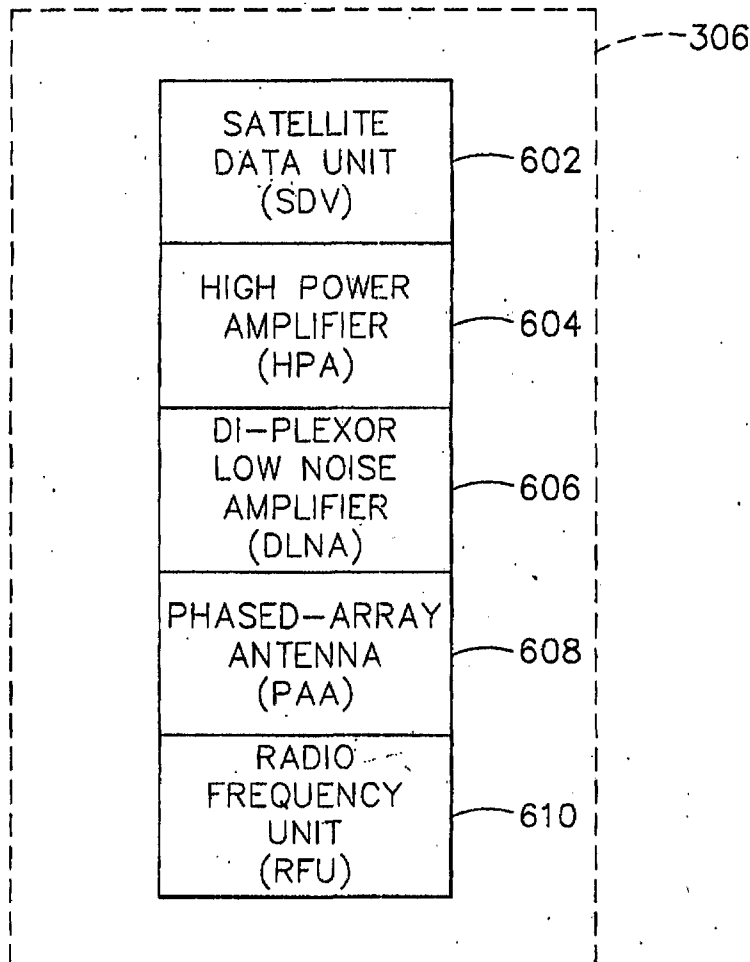


FIG. 6

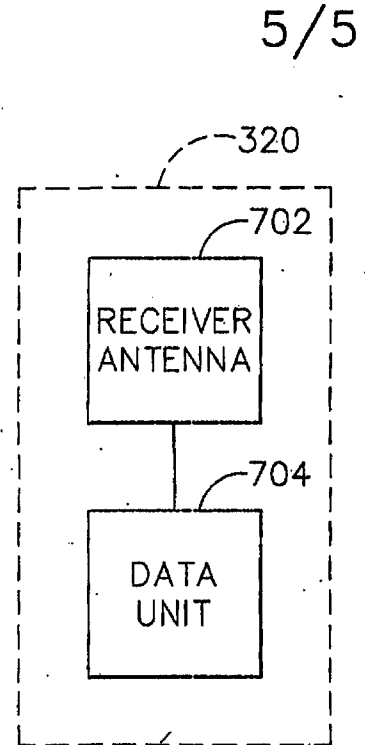


FIG. 7

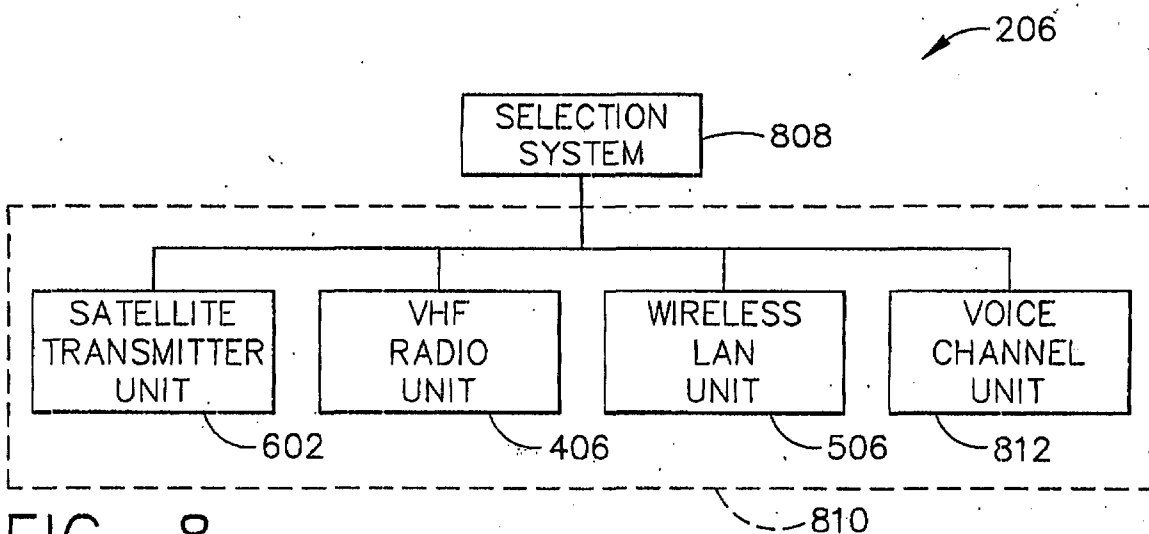


FIG. 8

Please type a plus sign (+) inside this box → ☐

PTO/SB/21 (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1996, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

# TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Application Number 09/224,214

Filing Date 12/30/1998

First Named Inventor Hielt

Group Art Unit 2664

Examiner Name Pham, Brenda H.

Total Number of Pages in This Submission 8

Attorney Docket Number A62-25262

## ENCLOSURES (check all that apply)

☐ Fee Transmittal Form☐ Fee Attached☐ Amendment / Reply☐ After Final☐ Affidavits/declaration(s)☐ Extension of Time Request☐ Express Abandonment Request☐ Information Disclosure Statement☐ Certified Copy of Priority Document(s)☐ Response to Missing Parts/Incomplete Application☐ Response to Missing Parts under 37 CFR 1.52 or 1.53☐ Assignment Papers (for an Application)☒ Drawing(s)☐ Licensing-related Papers☐ Petition☐ Petition to Convert to a Provisional Application☐ Power of Attorney, Revocation Change of Correspondence Address☐ Terminal Disclaimer☐ Request for Refund☐ CD, Number of CD(s) \_\_\_\_\_☐ After Allowance Communication to Group☐ Appeal Communication to Board of Appeals and Interferences☐ Appeal Communication to Group (Appeal Notice, Brief, Reply Brief)☐ Proprietary Information☐ Status Letter☐ Other Enclosure(s) (please identify below):

Return Postcard

Remarks

## SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual name

Honeywell International Inc.  
Miriam Jackson, Reg. No. 33,911

Signature

Miriam Jackson

Date

12 Sep 02

## CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, Washington, DC 20231 on this date: 9-12-02

Typed or printed name

Cynthia Langrall

Signature

C. Langrall

Date

9/12/02

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

06/02



## PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: **Mail Box ISSUE FEE**  
**Commissioner for Patents**  
**Washington, D.C. 20231**  
**Fax (703)746-4060**

**INSTRUCTIONS:** This form should be used for transmitting the **ISSUE FEE** and **PUBLICATION FEE** (if required). Blocks 1 through 4 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

**CURRENT CORRESPONDENCE ADDRESS (Name, Legal Entity, with any correction of last block)**

123 7590 06/17/2002  
**HONEYWELL INTERNATIONAL INC.**  
**101 COLUMBIA ROAD**  
**P O BOX 2245**  
**MORRISTOWN, NJ 07962-2245**



**NOTE:** A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

## Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Box Issue Fee address above, or being facsimile transmitted to the USPTO, on the date indicated below.

<b>Cynthia Langrall</b>	(Depositor's name)
<i>C. Langrall</i>	(Signature)
9-12-02	(Date)

<b>APPLICATION NO.</b>	<b>FILING DATE</b>	<b>FIRST NAMED INVENTOR</b>	<b>ATTORNEY DOCKET NO.</b>	<b>CONFIRMATION NO.</b>
09/224,214	12/30/1998	JOHN H. HIETT	A62-25262-US	3982

**TITLE OF INVENTION:** APPARATUS AND METHOD FOR DATA COMMUNICATIONS

<b>APPLN. TYPE</b>	<b>SMALL ENTITY</b>	<b>ISSUE FEE</b>	<b>PUBLICATION FEE</b>	<b>TOTAL FEE(S) DUE</b>	<b>DATE DUE</b>
nonprovisional	NO	\$1280	\$0	\$1280	09/17/2002

<b>EXAMINER</b>	<b>ART UNIT</b>	<b>CLASS-SUBCLASS</b>
PHAM, BRENDA H	2664	370-316000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

☒ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47) attached. Use of a Customer Number is required.

2. For printing on the patent front page, list (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 \_\_\_\_\_  
 2 \_\_\_\_\_  
 3 \_\_\_\_\_

## 3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

**PLEASE NOTE:** Unless an assignee is identified below, no assignee data will appear on the patent. Inclusion of assignee data is only appropriate when an assignment has been previously submitted to the USPTO or is being submitted under separate cover. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

Honeywell Inc.

(B) RESIDENCE: (CITY AND STATE OR COUNTRY)

Morristown, NJ

Please check the appropriate assignee category or categories (will not be printed on the patent)

☐ individual ☒ corporation or other private group entity ☐ government

4a. The following fee(s) are enclosed:

☐ Issue Fee

☐ Publication Fee

☒ Advance Order - # of Copies 1

4b. Payment of Fee(s):

☐ A check in the amount of the fee(s) is enclosed.

☐ Payment by credit card. Form PTO-2038 is attached.

☒ The Commissioner is hereby authorized by charge the required fee(s), or credit any overpayment, to Deposit Account Number 01-1125 (enclose an extra copy of this form).

Commissioner for Patents is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above.

(Authorized Signature)

*Maria J. [Signature]*

Reg. No. (Date)

33,911

12 Sep 02

**NOTE:** The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant, a registered attorney or agent, or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, D.C. 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

09/19/2002 HAWED2 00000108 011125 09224214

01 FC:142

1280.00 CH

02 FC:561

3.00 CH

TRANSMIT THIS FORM WITH FEE(S)

PTOL-45 (REV. 04-02) Approved for use through 01/31/2004. OMB 0651-0033

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Please type a plus sign (+) inside this box → ☐

PTO/SB/21 (08-00)

Approved for use through 10/31/2002. OMB 0861-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

<b>TRANSMITTAL FORM</b> <i>(to be used for all correspondence after initial filing)</i>	Application Number	09/224,214	
	Filing Date	12/30/1998	
	First Named Inventor	Hlett	
	Group Art Unit	2684	
	Examiner Name	Pham, Brenda H.	
Total Number of Pages in This Submission	6	Attorney Docket Number	A62-25262

ENCLOSURES (check all that apply)		
<input checked="" type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment / Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Assignment Papers (for an Application) <input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation <input type="checkbox"/> Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____	<input type="checkbox"/> After Allowance Communication to Group <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input type="checkbox"/> Other Enclosure(s) (please identify below): <div style="border: 1px solid black; padding: 2px; margin-top: 5px;">             Fee Address Indication              Return Postcard           </div>
Remarks		

**SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT**

Firm or Individual name	Honeywell International Inc. Miriam Jackson, Reg. No. 33,911
Signature	<i>Miriam Jackson</i>
Date	12 Sep 02

**CERTIFICATE OF MAILING**

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, Washington, DC 20231 on this date: 9/12/02			
Typed or printed name	Cynthia Langrall	Date	9/12/02
Signature	<i>C. Langrall</i>		

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

PATENT APPLICATION SERIAL NO. \_\_\_\_\_

U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICE  
FEE RECORD SHEET

01/14/1999 ABELLMAN 00000032 09224214

01 FC:101

760.00 0P

PTO-1556  
(5/87)

PATENT APPLICATION FEE DETERMINATION RECORD Effective November 10, 1998				Application or Docket Number <span style="font-size: 1.5em;">09/2241214</span>	
<b>CLAIMS AS FILED - PART I</b>					
(Column 1)		(Column 2)			
FOR	NUMBER FILED	NUMBER EXTRA			
BASIC FEE					
TOTAL CLAIMS		12	minus 20 = *		
INDEPENDENT CLAIMS		3	minus 3 = *		
MULTIPLE DEPENDENT CLAIM PRESENT					
* If the difference in column 1 is less than zero, enter "0" in column 2					
<b>CLAIMS AS AMENDED - PART II</b>					
(Column 1)		(Column 2)		(Column 3)	
AMENDMENT A	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	
	Total	*	12	Minus	** 20 = 0
	Independent	*	4	Minus	*** 3 = 1
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM				
(Column 1)		(Column 2)		(Column 3)	
AMENDMENT B	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	
	Total	*		Minus	**
	Independent	*		Minus	***
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM				
(Column 1)		(Column 2)		(Column 3)	
AMENDMENT C	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	
	Total	*		Minus	**
	Independent	*		Minus	***
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM				
* If the entry in column 1 is less than the entry in column 2, write "0" in column 3. ** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20." *** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3." The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.					

SMALL ENTITY TYPE <input type="checkbox"/>		OR	OTHER THAN SMALL ENTITY	
RATE	FEE		RATE	FEE
	380.00	OR		760.00
X\$ 9=		OR	X\$18=	
X39=		OR	X78=	
+130=		OR	+260=	
TOTAL		OR	TOTAL	1060

SMALL ENTITY TYPE <input type="checkbox"/>		OR	OTHER THAN SMALL ENTITY	
RATE	ADDITIONAL FEE		RATE	ADDITIONAL FEE
X\$ 9=		OR	X\$18=	
X39=		OR	X78=	
+130=		OR	+260=	
TOTAL ADDIT. FEE		OR	TOTAL ADDIT. FEE	240

SMALL ENTITY TYPE <input type="checkbox"/>		OR	OTHER THAN SMALL ENTITY	
RATE	ADDITIONAL FEE		RATE	ADDITIONAL FEE
X\$ 9=		OR	X\$18=	
X39=		OR	X78=	
+130=		OR	+260=	
TOTAL ADDIT. FEE		OR	TOTAL ADDIT. FEE	

SMALL ENTITY TYPE <input type="checkbox"/>		OR	OTHER THAN SMALL ENTITY	
RATE	ADDITIONAL FEE		RATE	ADDITIONAL FEE
X\$ 9=		OR	X\$18=	
X39=		OR	X78=	
+130=		OR	+260=	
TOTAL ADDIT. FEE		OR	TOTAL ADDIT. FEE	



ISSUE SLIP STAPLE AREA (for additional cross references)

POSITION	INITIALS	ID NO.	DATE
FEE DETERMINATION	<i>AS</i>		<i>1/18/99</i>
O.I.P.E. CLASSIFIER		<i>15</i>	<i>1/18/99</i>
FORMALITY REVIEW	<i>CMR</i> <i>CMR</i>	<i>65214</i> <i>65214</i>	<i>1-25-99</i> <i>5-11-99</i>

INDEX OF CLAIMS

- ✓

.....

Rejected
- =

.....

Allowed
- (Through numeral)...

Canceled
- +

.....

Restricted
- N

.....

Non-elected
- I

.....

Interference
- A

.....

Appeal
- O

.....

Objected

Claim	Date			
	Final	Original		
1	✓	✓	2/7/02	
2	✓	✓	11/6/02	
3	✓	✓	11/6/02	
4	✓	✓	11/6/02	
5	✓	✓	11/6/02	
6	✓	✓	11/6/02	
7	✓	✓	11/6/02	
8	✓	✓	11/6/02	
9	✓	✓	11/6/02	
10	✓	✓	11/6/02	
11	✓	✓	11/6/02	
12	✓	✓	11/6/02	
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				
32				
33				
34				
35				
36				
37				
38				
39				
40				
41				
42				
43				
44				
45				
46				
47				
48				
49				
50				

Claim	Date			
	Final	Original		
51				
52				
53				
54				
55				
56				
57				
58				
59				
60				
61				
62				
63				
64				
65				
66				
67				
68				
69				
70				
71				
72				
73				
74				
75				
76				
77				
78				
79				
80				
81				
82				
83				
84				
85				
86				
87				
88				
89				
90				
91				
92				
93				
94				
95				
96				
97				
98				
99				
100				

Claim	Date			
	Final	Original		
101				
102				
103				
104				
105				
106				
107				
108				
109				
110				
111				
112				
113				
114				
115				
116				
117				
118				
119				
120				
121				
122				
123				
124				
125				
126				
127				
128				
129				
130				
131				
132				
133				
134				
135				
136				
137				
138				
139				
140				
141				
142				
143				
144				
145				
146				
147				
148				
149				
150				

If more than 150 claims or 10 actions  
staple additional sheet here



SEARCHED			
Class	Sub.	Date	Exmr.
370   455	310	2/1/02	BP 
	316	"	
	352	"	
	12.1	"	
	151.2	"	
update	Search	6/10/02	BP

INTERFERENCE SEARCHED			
Class	Sub.	Date	Exmr.
370	310	6/13/02	BP
	316	"	"
	352	"	"
455	12.1	"	"
	151.2	"	"

SEARCH NOTES (INCLUDING SEARCH STRATEGY)		
	Date	Exmr.